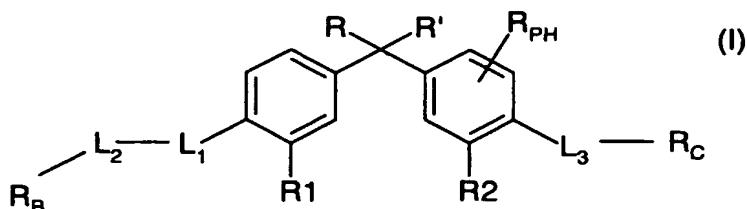


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WE CLAIM:

1. A compound represented by formula (I) or a pharmaceutically acceptable salt or a prodrug derivative thereof:



5

wherein;

R and R' are independently C₁-C₅ alkyl, C₁-C₅ fluoroalkyl, or together R and R' form a substituted or unsubstituted, saturated or unsaturated carbocyclic ring having from 3 to 8 carbon atoms;

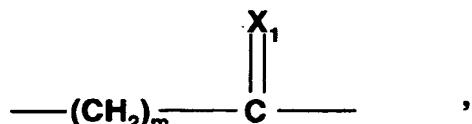
10 R_{PH} is hydrogen or methyl;

R1 and R2 are independently selected from the group consisting of hydrogen, halo, C₁-C₅ alkyl, C₁-C₅ fluoroalkyl, -O-C₁-C₅ alkyl, -S-C₁-C₅ alkyl, -O-C₁-C₅ fluoroalkyl, -CN, -NO₂, acetyl, -S-C₁-C₅ fluoroalkyl, C₂-C₅ alkenyl, C₃-C₅ cycloalkyl, and C₃-C₅ cycloalkenyl;

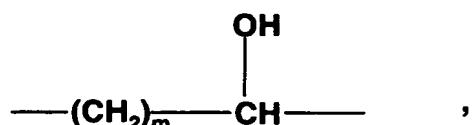
15 L₁ and L₂ and L₃ are independently divalent linking groups independently selected from the group consisting of

a bond

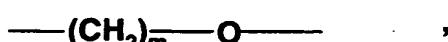
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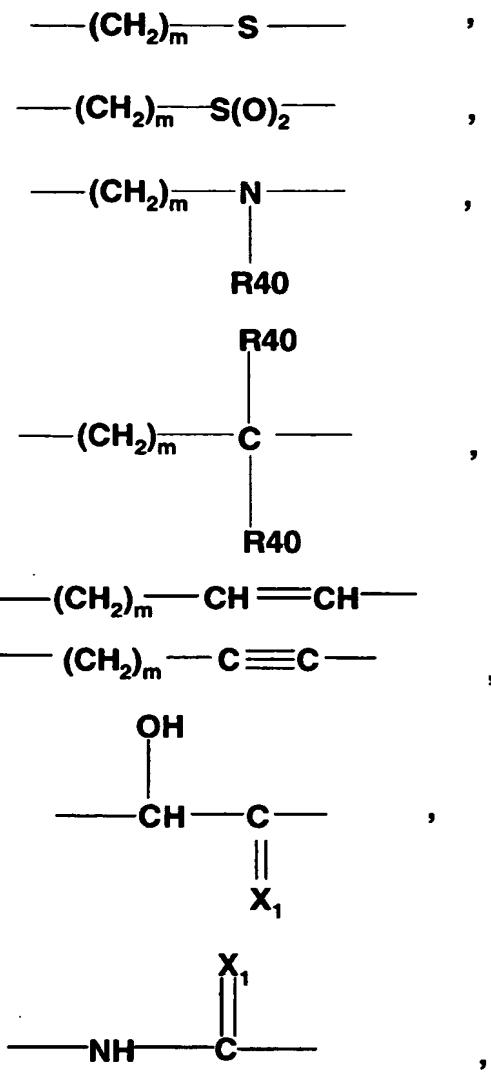


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-155-



5

where m is 0, 1 or 2, X₁ is oxygen or sulfur, and each R40 is independently hydrogen, C₁-C₅ alkyl, or C₁-C₅ fluoroalkyl;

R_B is

branched C₃-C₅ alkyl,

10 3-methyl-3-hydroxypentyl,

3-methyl-3-hydroxypentenyl,

3-methyl-3-hydroxypentynyl,

3-ethyl-3-hydroxypentyl,

3-ethyl-3-hydroxypentenyl,

15 3-ethyl-3-hydroxypentynyl,

3-ethyl-3-hydroxy-4-methylpentyl,

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3-ethyl-3-hydroxy-4-methylpentenyl,
3-ethyl-3-hydroxy-4-methylpentynyl,
3-propyl-3-hydroxypentyl,
3-propyl-3-hydroxypentenyl,
3-propyl-3-hydroxypentynyl,
1-hydroxy-2-methyl-1-(methylethyl)propyl,
3-methyl-3-hydroxy-4,4-dimethylpentyl,
3-methyl-3-hydroxy-4,4-dimethylpentenyl,
3-methyl-3-hydroxy-4,4-dimethylpentynyl,
3-ethyl-3-hydroxy-4,4-dimethylpentenyl,
3-ethyl-3-hydroxy-4,4-dimethylpentynyl,
4,4-dimethyl-3-hydroxypropyl,
1-hydroxycyclopentenyl,
1-hydroxycyclohexenyl,
1-hydroxycycloheptenyl,
1-hydroxycyclooctenyl,
1-hydroxycyclopropyl,
1-hydroxycyclobutyl,
1-hydroxycyclopentyl,
1-hydroxycyclohexyl,
1-hydroxycycloheptyl, or
1-hydroxycyclooctyl;

provided, however, that when

25 **R_B** is

3-methyl-3-hydroxypentyl,
3-methyl-3-hydroxypentenyl,
3-methyl-3-hydroxypentynyl,
3-ethyl-3-hydroxypentyl,
3-ethyl-3-hydroxypentenyl,
3-ethyl-3-hydroxypentynyl,
4,4-dimethyl-3-hydroxypropyl,

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3-ethyl-3-hydroxy-4-methylpentyl,
3-ethyl-3-hydroxy-4-methylpentenyl,
3-ethyl-3-hydroxy-4-methylpentynyl,
3-propyl-3-hydroxypentyl,
5 3-propyl-3-hydroxypentenyl,
3-propyl-3-hydroxypentynyl,
3-methyl-3-hydroxy-4,4-dimethylpentyl,
3-methyl-3-hydroxy-4,4-dimethylpentenyl,
3-methyl-3-hydroxy-4,4-dimethylpentynyl,
10 3-ethyl-3-hydroxy-4,4-dimethylpentynyl,
3-ethyl-3-hydroxy-4,4-dimethylpentenyl,
3-ethyl-3-hydroxy-4,4-dimethylpentynyl, or
1-hydroxy-2-methyl-1-(methylethyl)propyl;

then L₁ and L₂ combine as a bond; and

15 R_C is

-O-SO₂-(R50)

where R50 is

-C₁₋₃alkyl, -CF₃, -(CH₂)₁₋₂CF₃,
-S-C₁₋₃alkyl, -SO₂-C₁₋₃alkyl,
20 -(CH₂)₁₋₂C(O)NHMe,
-(CH₂)₁₋₂CO₂H; or

-NH-SO₂-(R50)

where R50 is

-C₁₋₃alkyl, -CF₃, -(CH₂)₁₋₂CF₃,
-S-C₁₋₃alkyl, -SO₂-C₁₋₃alkyl,
25 -(CH₂)₁₋₂CO₂H,
-(CH₂)₁₋₂C(O)NHMe, or

-158-

$-\text{N}(\text{SO}_2\text{R51})_2$

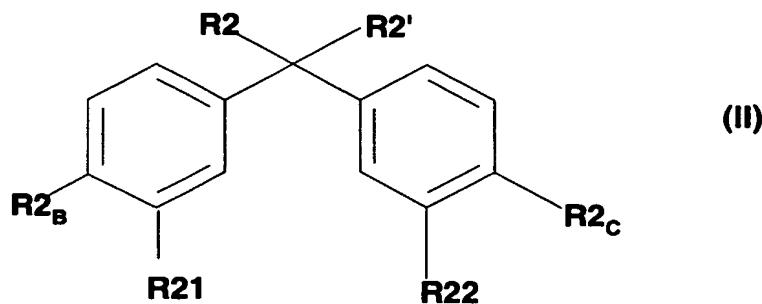
where each R51 is independently,

$-\text{C}_{1-3}\text{alkyl}$, $-\text{CF}_3$, $-(\text{CH}_2)_{1-2}\text{CF}_3$,
 $-(\text{CH}_2)_{1-2}\text{C}(\text{O})\text{NHMe}$,
5 $-\text{S-C}_{1-3}\text{alkyl}$, $-\text{SO}_2\text{C}_{1-3}\text{alkyl}$, or
 $-(\text{CH}_2)_{1-2}\text{CO}_2\text{H}$.

2. A compound or pharmaceutically acceptable salt or prodrug thereof according to Claim 1 wherein R_{PH} is hydrogen.

10

3. A compound represented by formula (II) or a pharmaceutically acceptable salt or a prodrug derivative thereof:



15 wherein;

R2 and R2' are independently methyl or ethyl;

R21 and R22 are independently selected from the group consisting of hydrogen, fluoro, -Cl, -CF₃, -CH₂F, -CHF₂, methoxy, ethoxy, vinyl, methyl, ethyl, propyl, 1-methylethyl, 1,1-dimethylethyl, butyl, 1-methylpropyl, 2-methylpropyl, or cyclopropyl;

20 R2B is a group represented by the formula:

3-methyl-3-hydroxypentyl,

3-methyl-3-hydroxypentenyl,

3-methyl-3-hydroxypentynyl,

3-ethyl-3-hydroxypentyl,

3-ethyl-3-hydroxypentenyl,

3-ethyl-3-hydroxypentynyl,

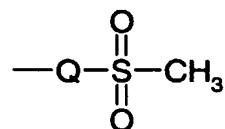
3-ethyl-3-hydroxy-4-methylpentyl,

25

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3-ethyl-3-hydroxy-4-methylpentenyl,
 3-ethyl-3-hydroxy-4-methylpentynyl,
 3-propyl-3-hydroxypentyl,
 3-propyl-3-hydroxypentenyl,
 5
 3-propyl-3-hydroxypentynyl,
 1-hydroxy-2-methyl-1-(methylethyl)propyl

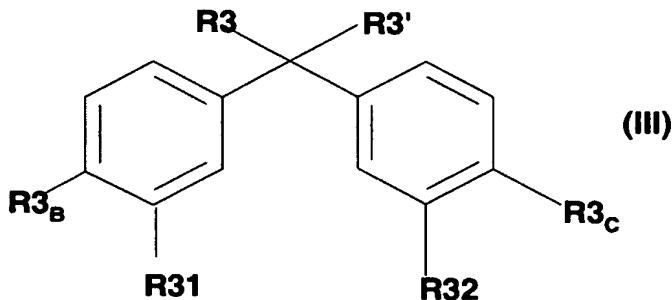
R2C is



where Q is -O- or -NH-.

10

4. A compound represented by formula (III) or a pharmaceutically acceptable salt or a prodrug derivative thereof:



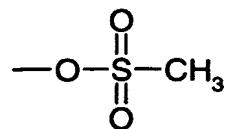
15 wherein;

R3 and R3' are independently methyl or ethyl;

R31 and R32 are independently selected from the group consisting of hydrogen, fluoro, -Cl, -CF₃, -CH₂F, -CHF₂, methoxy, ethoxy, vinyl, methyl, ethyl, propyl, 1-methylethyl, 1,1-dimethylethyl, butyl, 1-methylpropyl, 2-methylpropyl, or cyclopropyl;

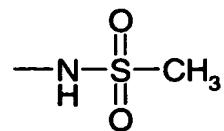
20 R3B is 3-hydroxy-3-ethyl-pentyl or 4,4-dimethyl(-3-hydroxypropyl).

R3C is



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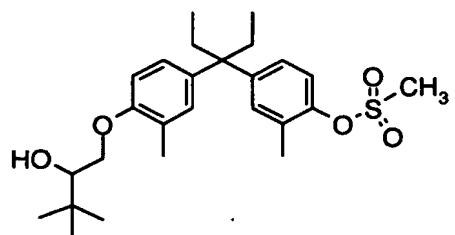
or



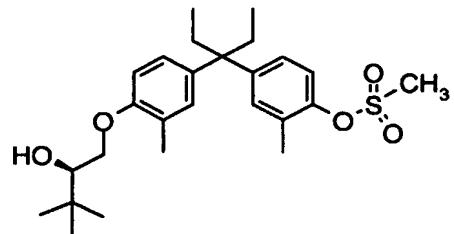
5. A compound or a pharmaceutically acceptable salts or an ester prodrug

5 derivative thereof according to Claim 1 represented by the structural formulae M-1 to M-31 as follows:

M-1)



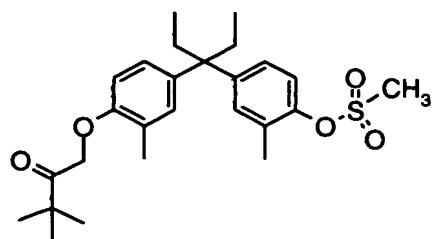
M-2)



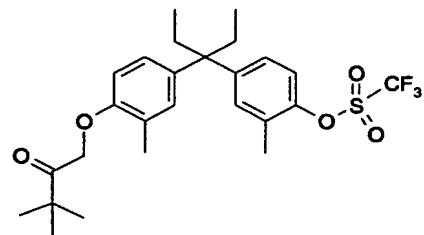
10

M-3)

-161-

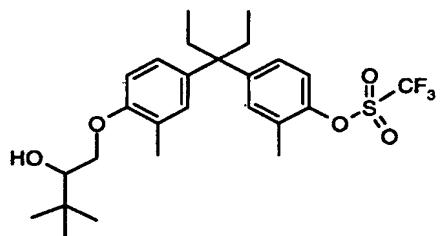


M-4)

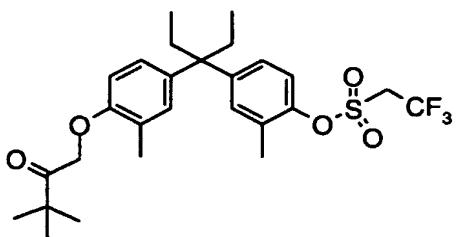


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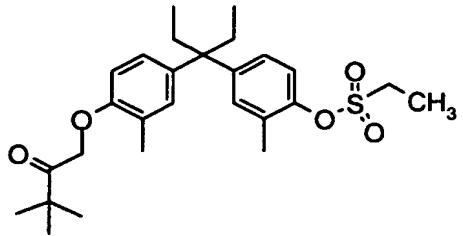
M-5)



M-6)



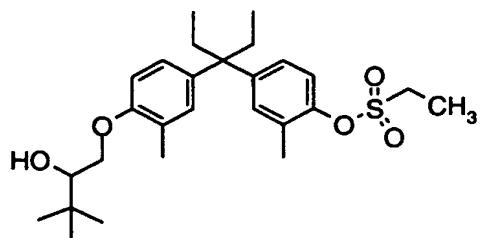
M-7)



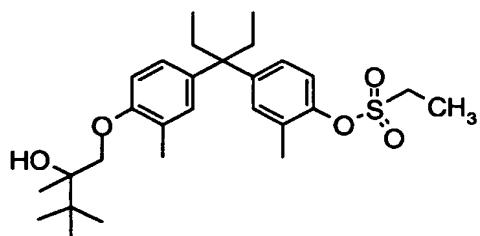
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-162-

M-8)

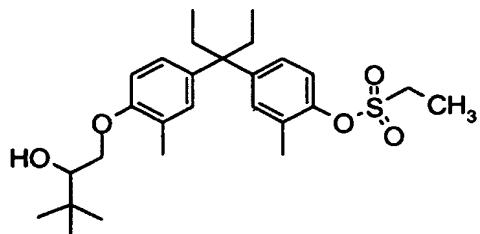


M-9)

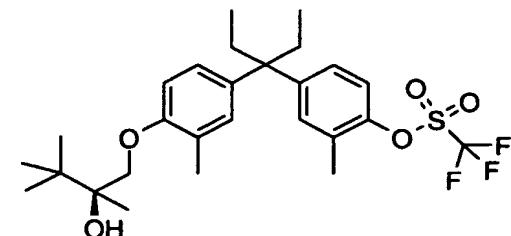


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M-11)



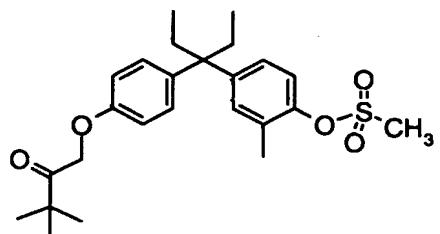
M-12)



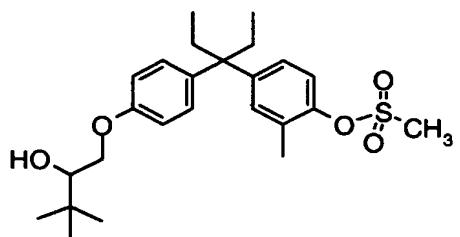
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M-13)

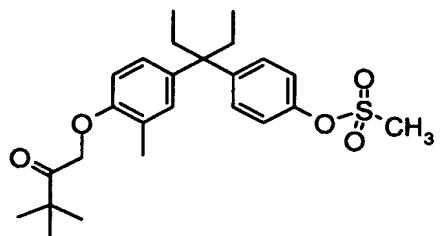
-163-



M-14)

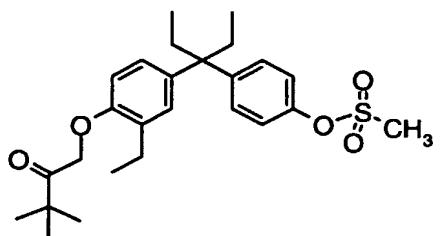


M-15)

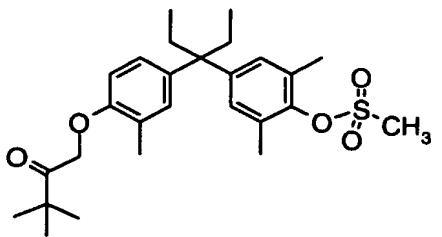


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M-16)



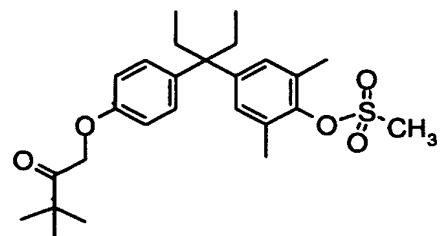
M-17)



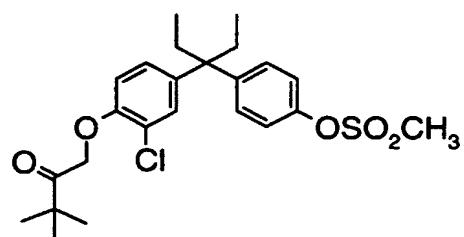
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M-18)

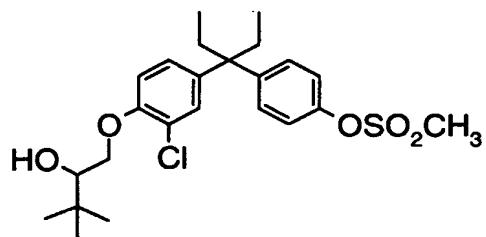
-164-



M-19)

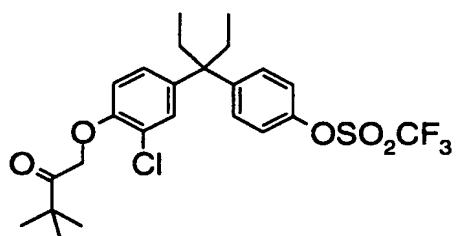


M-20)



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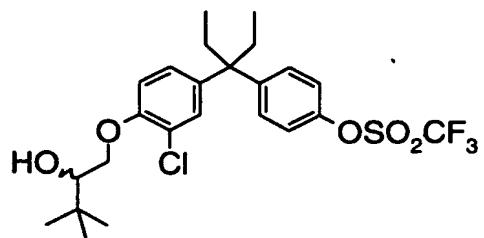
M-22)



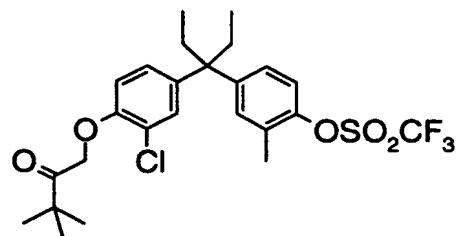
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M-23)

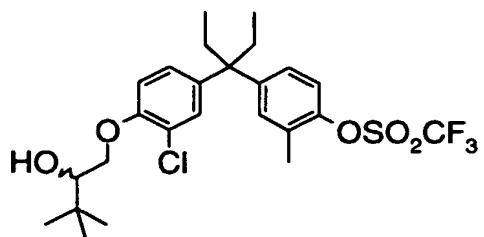
-165-



M-24)

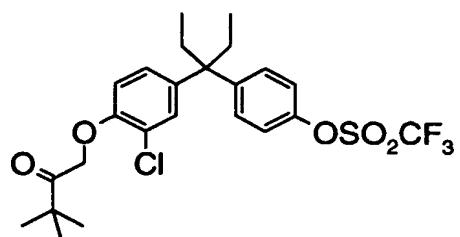


M-25)



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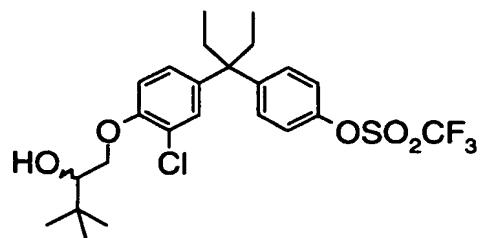
M-28)



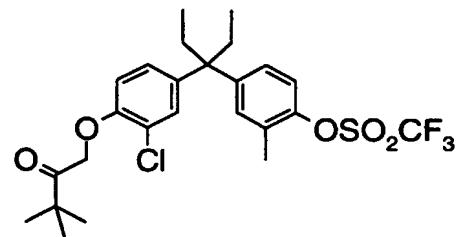
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M-29)

-166-

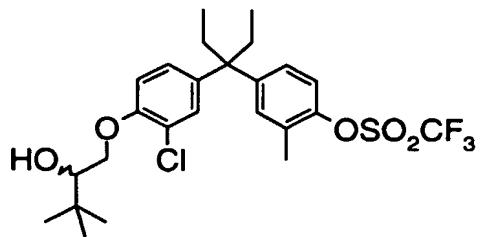


M-30)



or

M-31)

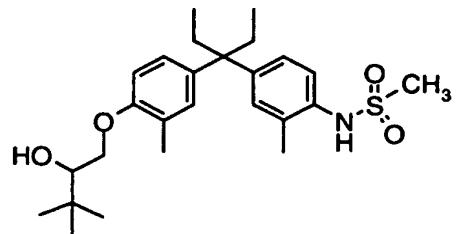


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6. A compound or a pharmaceutically acceptable salt or an ester prodrug

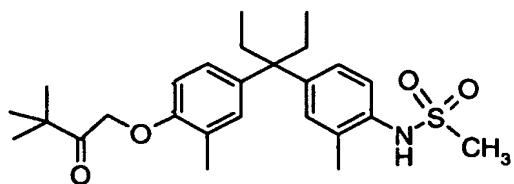
10 derivative thereof according to Claim 1 represented by the structural formulae M-32 to M-
50 as follows:

M-32)

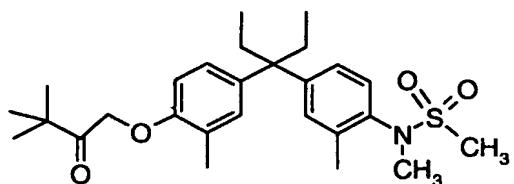


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M-34)

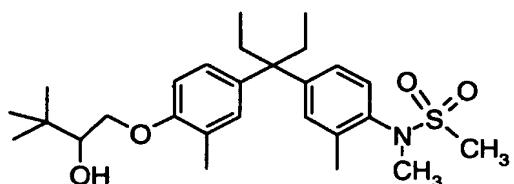


M-35)

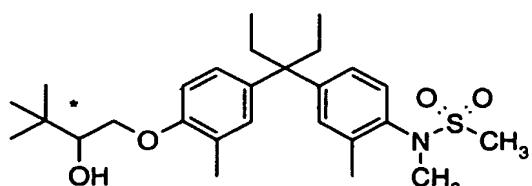


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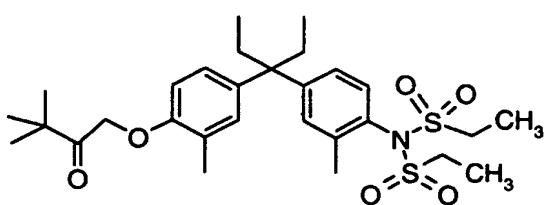
M-36)



M-37)

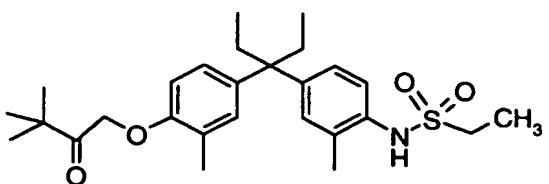


M-38)



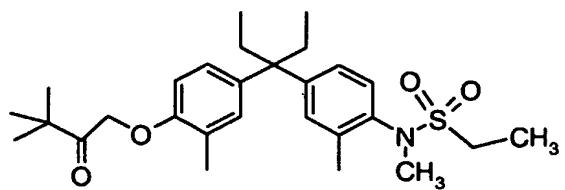
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M-39)

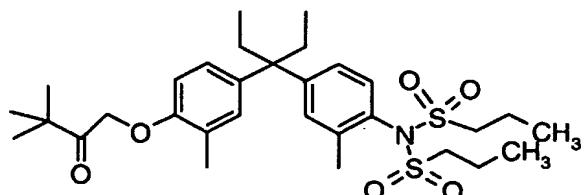


M-40)

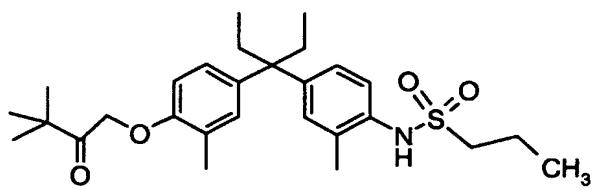
-168-



M-41)

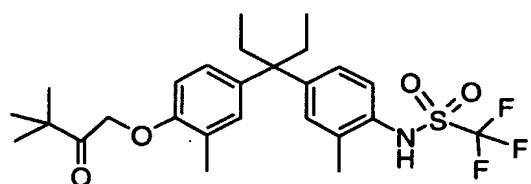


M-42)

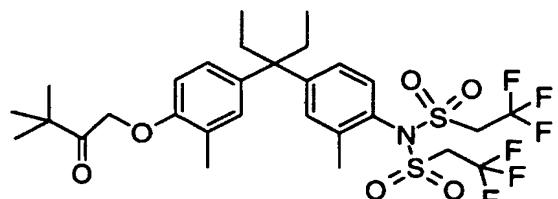


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M-43)

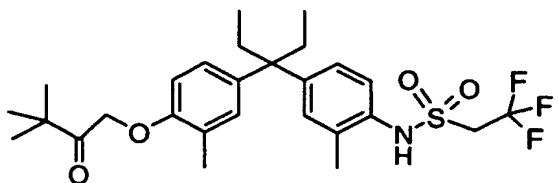


M-44)



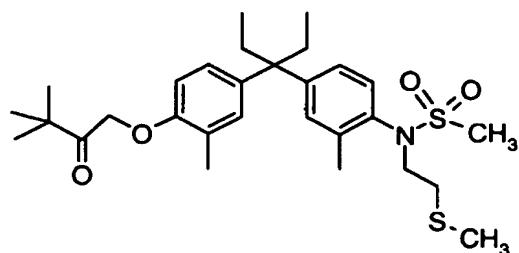
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M-45)

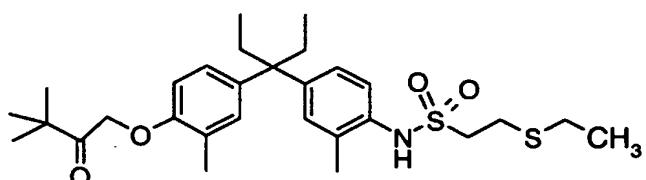


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M-46)

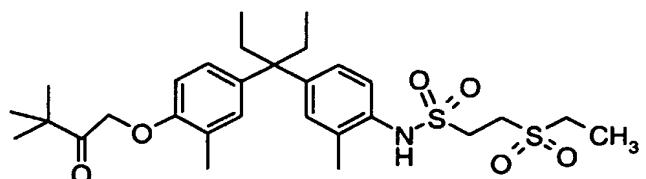


M-47)

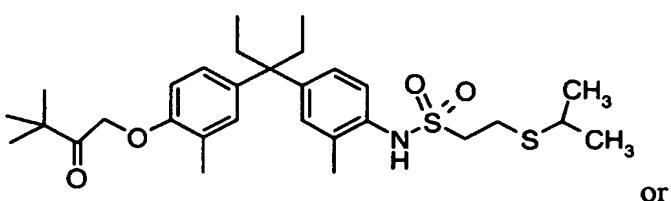


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M-48)

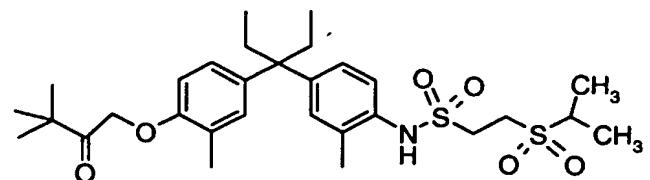


M-49)



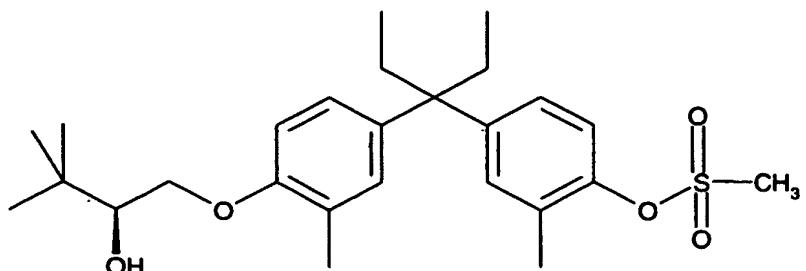
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M-50)

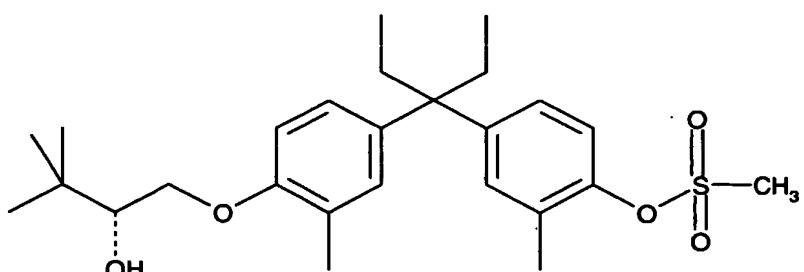


7. A compound according to Claim 1 represented by the formula:

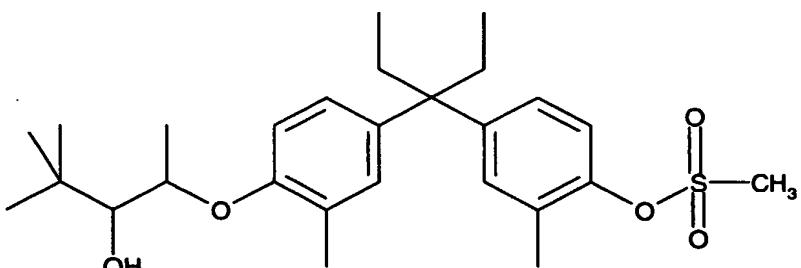
-170-



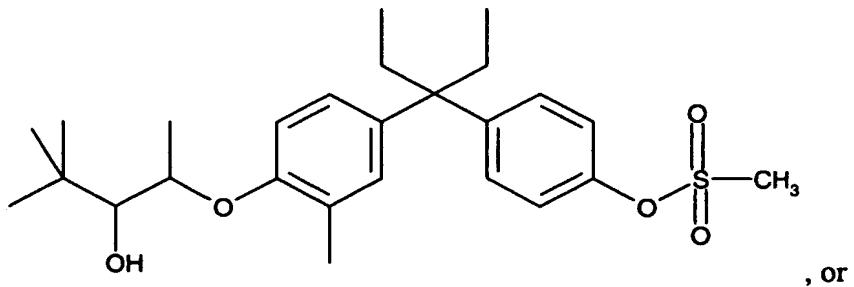
or



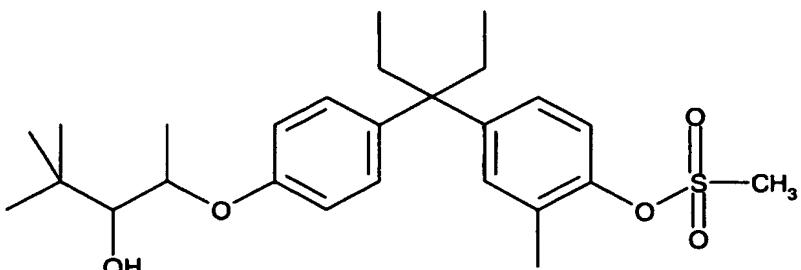
8. A compound according to Claim 1 represented by the formula:



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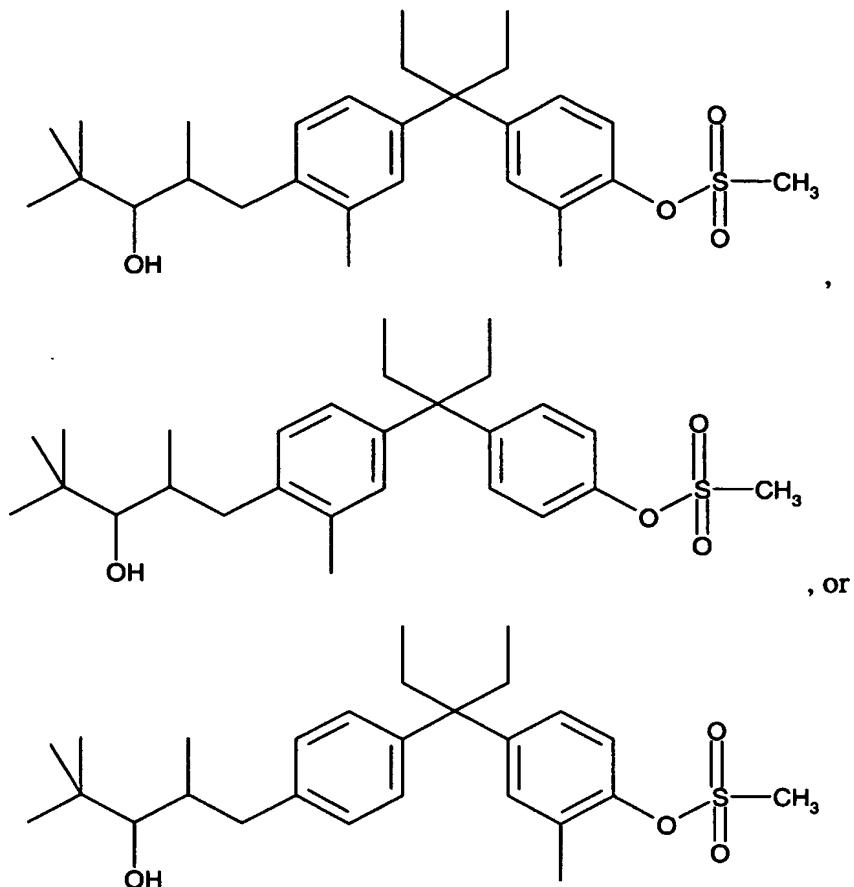


, or



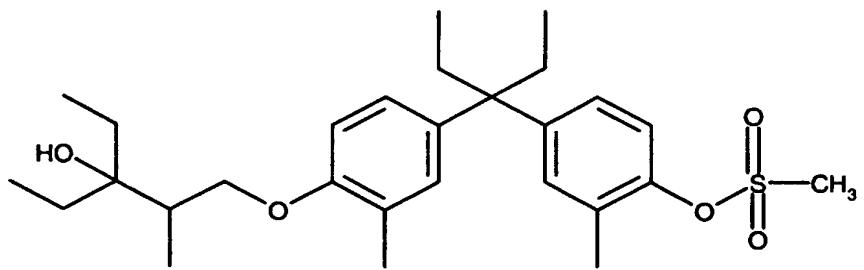
-171-

9. A compound according to Claim 1 represented by the formula:

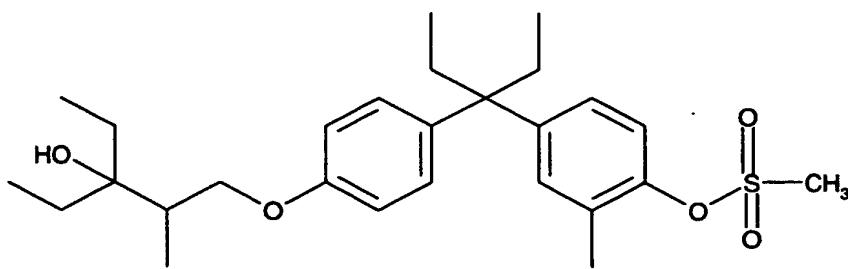
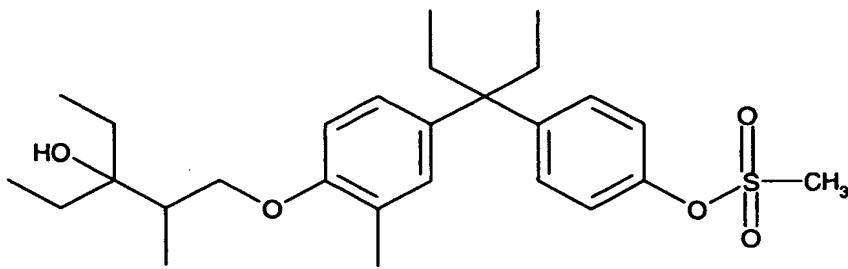


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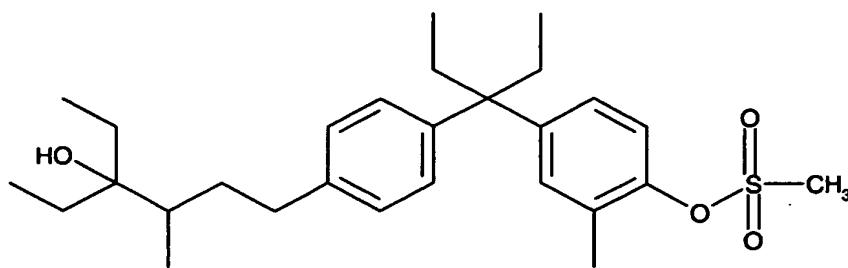
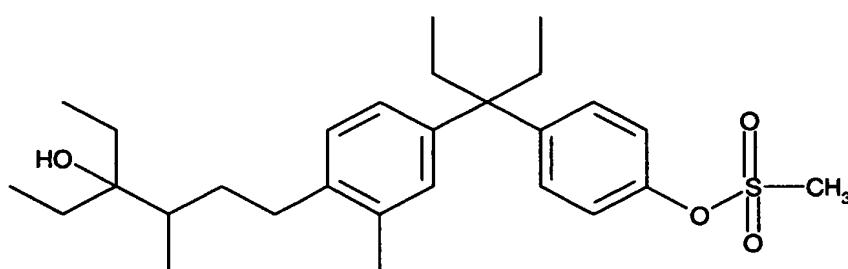
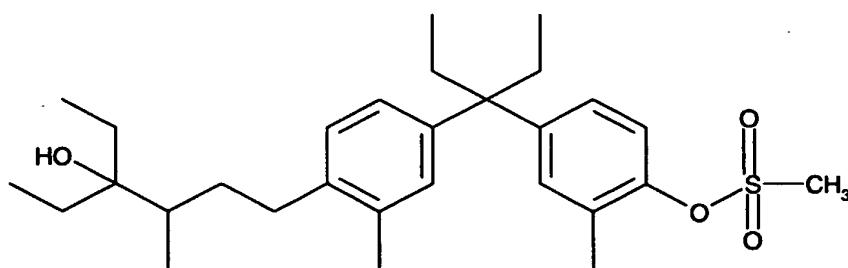
10. A compound according to Claim 1 represented by the formula:



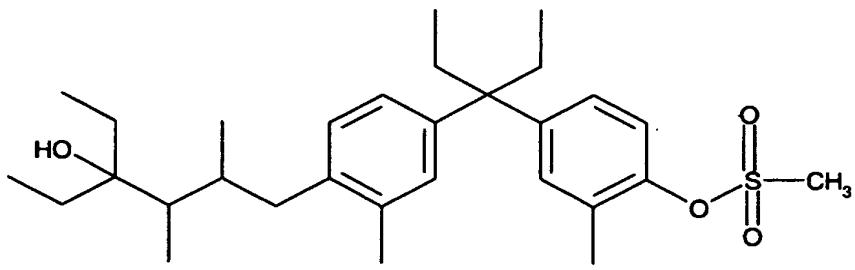
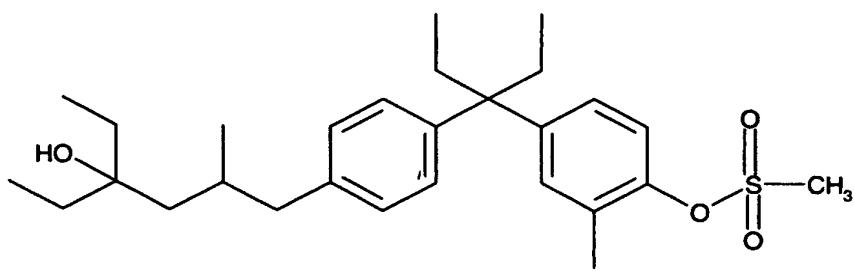
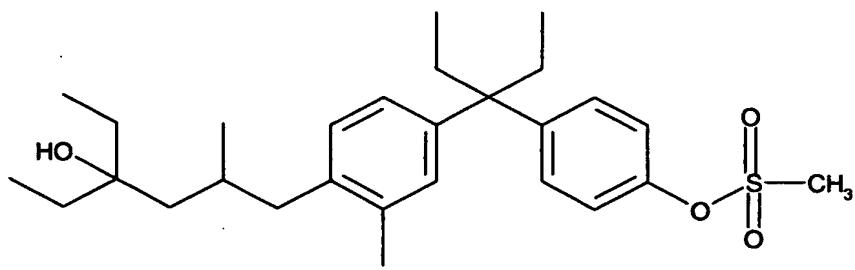
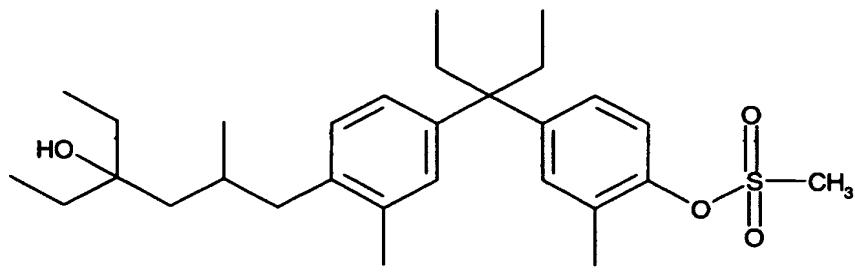
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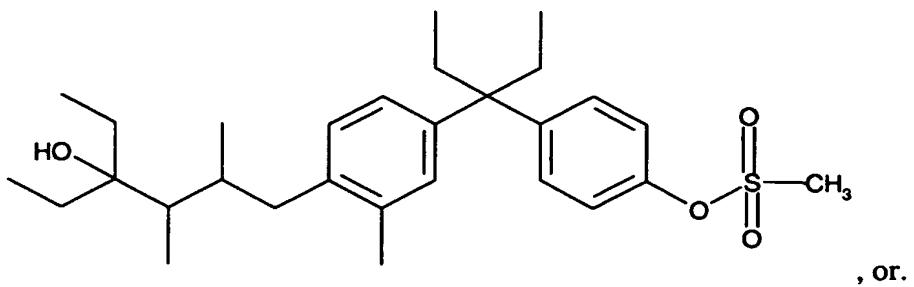
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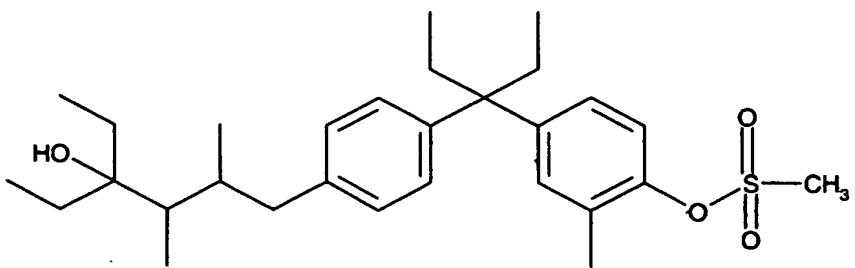


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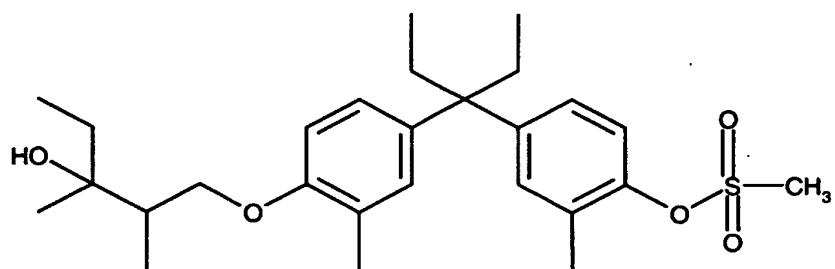


, or.

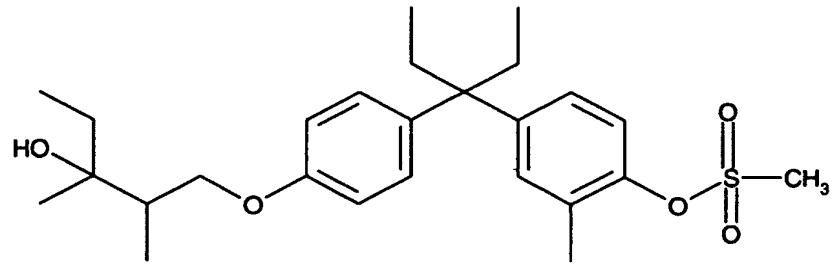
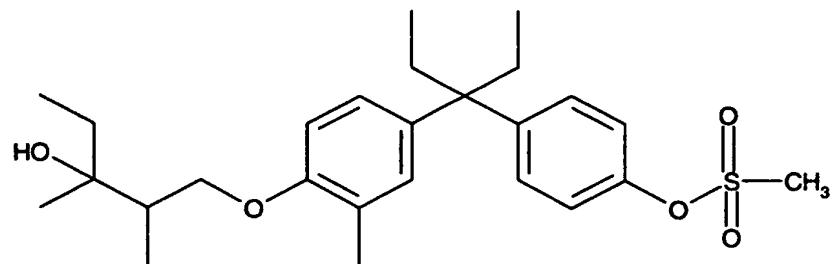
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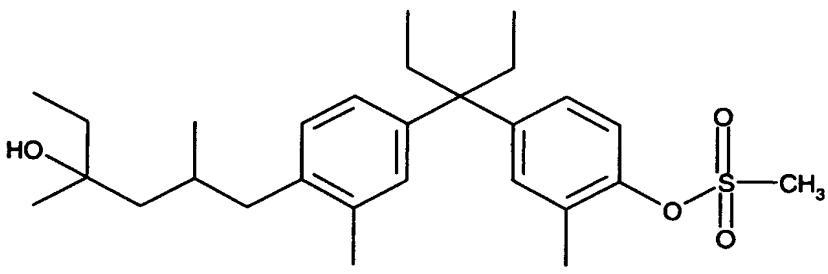
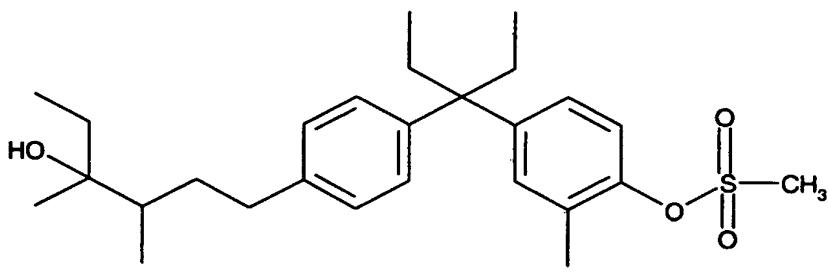
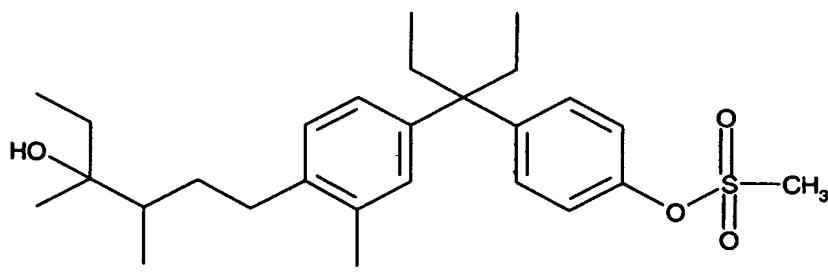
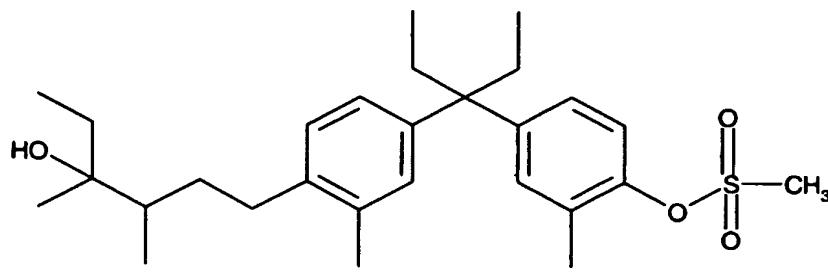
11. A compound according to Claim 1 represented by the formula:



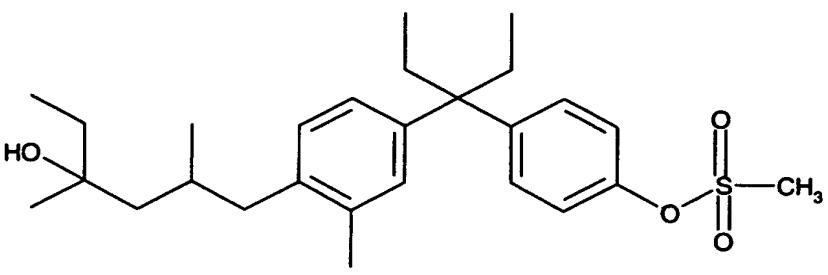
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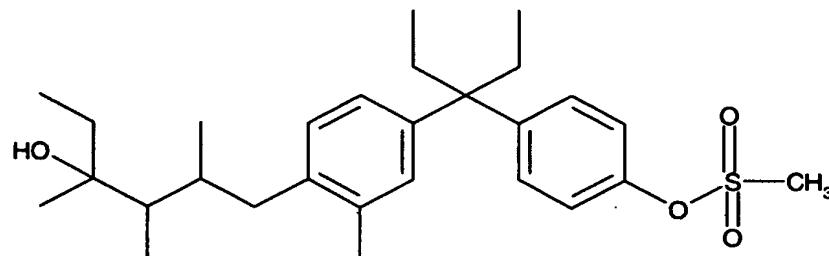
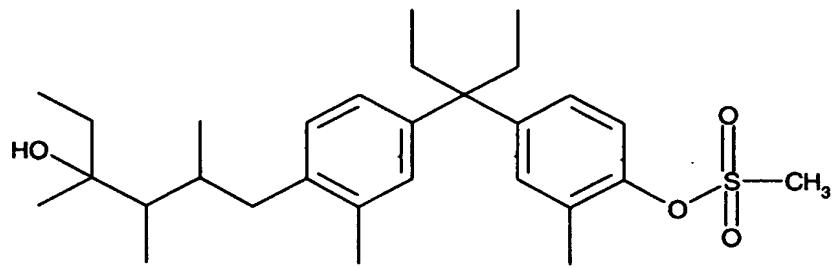
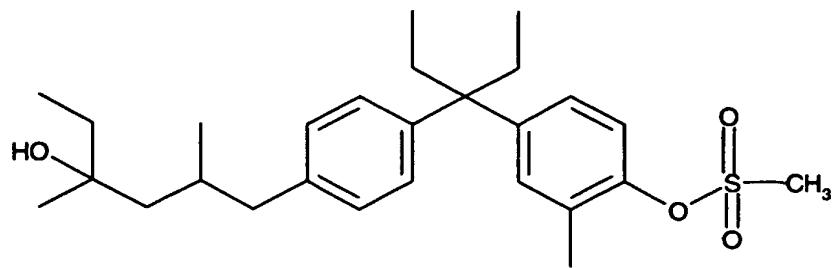
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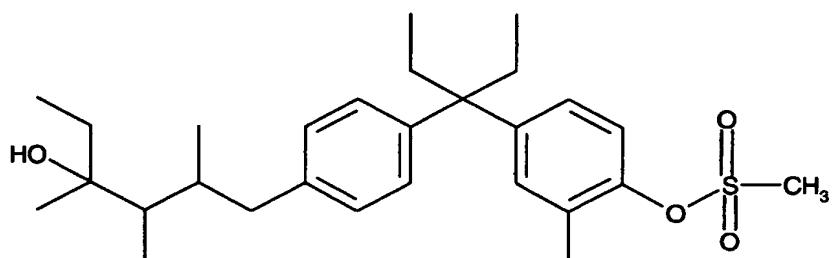
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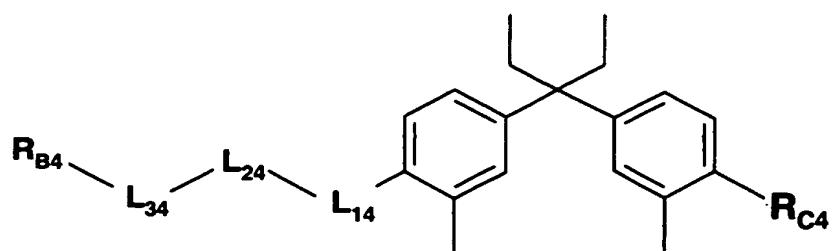


, or.



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12. A compound or a pharmaceutically acceptable salt or an ester prodrug derivative thereof represented by the formula:



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where said compound is selected from a compound code numbered 1 thru 135, with each compound having the specific selection of substituents R_{B4} , R_{C4} , L_{14} , L_{24} , L_{34} , and R_{C4} shown in the row following the compound code number, as set out in the following

Table 1 :

5

Table 1

Code No.	R_{B4}	L_{34}	L_{24}	L_{14}	R_{C4}
1	tBu	C(O)	CH2	O	-O-S(O)2Me
2	tBu	C(O)	CH2	CH2	-O-S(O)2Me
3	tBu	C(O)	CH(Me)	CH2	-O-S(O)2Me
4	tBu	CHOH	CH2	O	-O-S(O)2Me
5	tBu	CHOH	CH2	CH2	-O-S(O)2Me
6	tBu	CHOH	CH(Me)	CH2	-O-S(O)2Me
7	tBu	C(Me)OH	CH2	O	-O-S(O)2Me
8	tBu	C(Me)OH	CH2	CH2	-O-S(O)2Me
9	tBu	C(Me)OH	CH(Me)	CH2	-O-S(O)2Me
10	1-hydroxycyclopentyl	bond	CH2	O	-O-S(O)2Me
11	1-hydroxycyclopentyl	bond	CH2	CH2	-O-S(O)2Me
12	1-hydroxycyclopentyl	bond	CH(Me)	CH2	-O-S(O)2Me
13	1-hydroxycyclopentyl	bond	CH2	O	-O-S(O)2Me
14	1-hydroxycyclopentyl	bond	CH2	CH2	-O-S(O)2Me
15	1-hydroxycyclopentyl	bond	CH(Me)	CH2	-O-S(O)2Me
16	1-hydroxycyclopentyl	bond	CH2	O	-O-S(O)2Me
17	1-	bond	CH2	CH2	-O-S(O)2Me

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	hydroxycyclopentyl				
18	1-hydroxycyclopentyl	bond	CH(Me)	CH2	-O-S(O)2Me
19	1-hydroxycyclohexyl	bond	CH2	O	-O-S(O)2Me
20	1-hydroxycyclohexyl	bond	CH2	CH2	-O-S(O)2Me
21	1-hydroxycyclohexyl	bond	CH(Me)	CH2	-O-S(O)2Me
22	1-hydroxycyclohexyl	bond	CH2	O	-O-S(O)2Me
23	1-hydroxycyclohexyl	bond	CH2	CH2	-O-S(O)2Me
24	1-hydroxycyclohexyl	bond	CH(Me)	CH2	-O-S(O)2Me
25	1-hydroxycyclohexyl	bond	CH2	O	-O-S(O)2Me
26	1-hydroxycyclohexyl	bond	CH2	CH2	-O-S(O)2Me
27	1-hydroxycyclohexyl	bond	CH(Me)	CH2	-O-S(O)2Me
28	tBu	C(O)	CH2	O	-O-S(O)2Et
29	tBu	C(O)	CH2	CH2	-O-S(O)2Et
30	tBu	C(O)	CH(Me)	CH2	-O-S(O)2Et
31	tBu	CHOH	CH2	O	-O-S(O)2Et
32	tBu	CHOH	CH2	CH2	-O-S(O)2Et
33	tBu	CHOH	CH(Me)	CH2	-O-S(O)2Et
34	tBu	C(Me)OH	CH2	O	-O-S(O)2Et
35	tBu	C(Me)OH	CH2	CH2	-O-S(O)2Et
36	tBu	C(Me)OH	CH(Me)	CH2	-O-S(O)2Et
37	1-hydroxycyclopentyl	bond	CH2	O	-O-S(O)2Et
38	1-hydroxycyclopentyl	bond	CH2	CH2	-O-S(O)2Et
39	1-hydroxycyclopentyl	bond	CH(Me)	CH2	-O-S(O)2Et
40	1-hydroxycyclopentyl	bond	CH2	O	-O-S(O)2Et
41	1-hydroxycyclopentyl	bond	CH2	CH2	-O-S(O)2Et

42	1-hydroxycyclopentyl	bond	CH(Me)	CH2	-O-S(O)2Et
43	1-hydroxycyclopentyl	bond	CH2	O	-O-S(O)2Et
44	1-hydroxycyclopentyl	bond	CH2	CH2	-O-S(O)2Et
45	1-hydroxycyclopentyl	bond	CH(Me)	CH2	-O-S(O)2Et
46	1-hydroxycyclohexyl	bond	CH2	O	-O-S(O)2Et
47	1-hydroxycyclohexyl	bond	CH2	CH2	-O-S(O)2Et
48	1-hydroxycyclohexyl	bond	CH(Me)	CH2	-O-S(O)2Et
49	1-hydroxycyclohexyl	bond	CH2	O	-O-S(O)2Et
50	1-hydroxycyclohexyl	bond	CH2	CH2	-O-S(O)2Et
51	1-hydroxycyclohexyl	bond	CH(Me)	CH2	-O-S(O)2Et
52	1-hydroxycyclohexyl	bond	CH2	O	-O-S(O)2Et
53	1-hydroxycyclohexyl	bond	CH2	CH2	-O-S(O)2Et
54	1-hydroxycyclohexyl	bond	CH(Me)	CH2	-O-S(O)2Et
55	tBu	C(O)	CH2	O	-O-S(O)2CH2CO2H
56	tBu	C(O)	CH2	CH2	-O-S(O)2CH2CO2H
57	tBu	C(O)	CH(Me)	CH2	-O-S(O)2CH2CO2H
58	tBu	CHOH	CH2	O	-O-S(O)2CH2CO2H
59	tBu	CHOH	CH2	CH2	-O-S(O)2CH2CO2H
60	tBu	CHOH	CH(Me)	CH2	-O-S(O)2CH2CO2H
61	tBu	C(Me)OH	CH2	O	-O-S(O)2CH2CO2H

62	tBu	C(Me)OH	CH2	CH2	-O- S(O)2CH2CO2H
63	tBu	C(Me)OH	CH(Me)	CH2	-O- S(O)2CH2CO2H
64	1- hydroxycyclopentyl	bond	CH2	O	-O- S(O)2CH2CO2H
65	1- hydroxycyclopentyl	bond	CH2	CH2	-O- S(O)2CH2CO2H
66	1- hydroxycyclopentyl	bond	CH(Me)	CH2	-O- S(O)2CH2CO2H
67	1- hydroxycyclopentyl	bond	CH2	O	-O- S(O)2CH2CO2H
68	1- hydroxycyclopentyl	bond	CH2	CH2	-O- S(O)2CH2CO2H
69	1- hydroxycyclopentyl	bond	CH(Me)	CH2	-O- S(O)2CH2CO2H
70	1- hydroxycyclopentyl	bond	CH2	O	-O- S(O)2CH2CO2H
71	1- hydroxycyclopentyl	bond	CH2	CH2	-O- S(O)2CH2CO2H
72	1- hydroxycyclopentyl	bond	CH(Me)	CH2	-O- S(O)2CH2CO2H
73	1-hydroxycyclohexyl	bond	CH2	O	-O- S(O)2CH2CO2H
74	1-hydroxycyclohexyl	bond	CH2	CH2	-O- S(O)2CH2CO2H
75	1-hydroxycyclohexyl	bond	CH(Me)	CH2	-O- S(O)2CH2CO2H
76	1-hydroxycyclohexyl	bond	CH2	O	-O- S(O)2CH2CO2H
77	1-hydroxycyclohexy	bond	CH2	CH2	-O-

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					S(O)2CH2CO2H
78	1-hydroxycyclohexyl	bond	CH(Me)	CH2	-O- S(O)2CH2CO2H
79	1-hydroxycyclohexyl	bond	CH2	O	-O- S(O)2CH2CO2H
80	1-hydroxycyclohexyl	bond	CH2	CH2	-O- S(O)2CH2CO2H
81	1-hydroxycyclohexyl	bond	CH(Me)	CH2	-O- S(O)2CH2CO2H
82	tBu	C(O)	CH2	O	-NH-S(O)2Me
83	tBu	C(O)	CH2	CH2	-NH-S(O)2Me
84	tBu	C(O)	CH(Me)	CH2	-NH-S(O)2Me
85	tBu	CHOH	CH2	O	-NH-S(O)2Me
86	tBu	CHOH	CH2	CH2	-NH-S(O)2Me
87	tBu	CHOH	CH(Me)	CH2	-NH-S(O)2Me
88	tBu	C(Me)OH	CH2	O	-NH-S(O)2Me
89	tBu	C(Me)OH	CH2	CH2	-NH-S(O)2Me
90	tBu	C(Me)OH	CH(Me)	CH2	-NH-S(O)2Me
91	1- hydroxycyclopentyl	bond	CH2	O	-NH-S(O)2Me
92	1- hydroxycyclopentyl	bond	CH2	CH2	-NH-S(O)2Me
93	1- hydroxycyclopentyl	bond	CH(Me)	CH2	-NH-S(O)2Me
94	1- hydroxycyclopentyl	bond	CH2	O	-NH-S(O)2Me
95	1- hydroxycyclopentyl	bond	CH2	CH2	-NH-S(O)2Me
96	1- hydroxycyclopentyl	bond	CH(Me)	CH2	-NH-S(O)2Me
97	1-	bond	CH2	O	-NH-S(O)2Me

	hydroxycyclopentyl				
98	1-hydroxycyclopentyl	bond	CH2	CH2	-NH-S(O)2Me
99	1-hydroxycyclopentyl	bond	CH(Me)	CH2	-NH-S(O)2Me
100	1-hydroxycyclohexyl	bond	CH2	O	-NH-S(O)2Me
101	1-hydroxycyclohexyl	bond	CH2	CH2	-NH-S(O)2Me
102	1-hydroxycyclohexyl	bond	CH(Me)	CH2	-NH-S(O)2Me
103	1-hydroxycyclohexyl	bond	CH2	O	-NH-S(O)2Me
104	1-hydroxycyclohexyl	bond	CH2	CH2	-NH-S(O)2Me
105	1-hydroxycyclohexyl	bond	CH(Me)	CH2	-NH-S(O)2Me
106	1-hydroxycyclohexyl	bond	CH2	O	-NH-S(O)2Me
107	1-hydroxycyclohexyl	bond	CH2	CH2	-NH-S(O)2Me
108	1-hydroxycyclohexyl	bond	CH(Me)	CH2	-NH-S(O)2Me
109	tBu	C(O)	CH2	O	-NH-S(O)2CH2CO2H
110	tBu	C(O)	CH2	CH2	-NH-S(O)2CH2CO2H
111	tBu	C(O)	CH(Me)	CH2	-NH-S(O)2CH2CO2H
112	tBu	CHOH	CH2	O	-NH-S(O)2CH2CO2H
113	tBu	CHOH	CH2	CH2	-NH-S(O)2CH2CO2H
114	tBu	CHOH	CH(Me)	CH2	-NH-S(O)2CH2CO2H
115	tBu	C(Me)OH	CH2	O	-NH-S(O)2CH2CO2H
116	tBu	C(Me)OH	CH2	CH2	-NH-S(O)2CH2CO2H
117	tBu	C(Me)OH	CH(Me)	CH2	-NH-

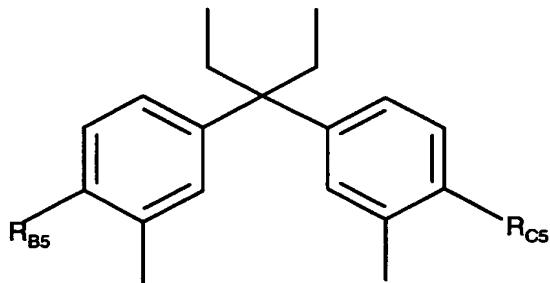
-183-

					S(O)2CH ₂ CO ₂ H
118	1-hydroxycyclopentyl	bond	CH ₂	O	-NH-S(O)2CH ₂ CO ₂ H
119	1-hydroxycyclopentyl	bond	CH ₂	CH ₂	-NH-S(O)2CH ₂ CO ₂ H
120	1-hydroxycyclopentyl	bond	CH(Me)	CH ₂	-NH-S(O)2CH ₂ CO ₂ H
121	1-hydroxycyclopentyl	bond	CH ₂	O	-NH-S(O)2CH ₂ CO ₂ H
122	1-hydroxycyclopentyl	bond	CH ₂	CH ₂	-NH-S(O)2CH ₂ CO ₂ H
123	1-hydroxycyclopentyl	bond	CH(Me)	CH ₂	-NH-S(O)2CH ₂ CO ₂ H
124	1-hydroxycyclopentyl	bond	CH ₂	O	-NH-S(O)2CH ₂ CO ₂ H
125	1-hydroxycyclopentyl	bond	CH ₂	CH ₂	-NH-S(O)2CH ₂ CO ₂ H
126	1-hydroxycyclopentyl	bond	CH(Me)	CH ₂	-NH-S(O)2CH ₂ CO ₂ H
127	1-hydroxycyclohexyl	bond	CH ₂	O	-NH-S(O)2CH ₂ CO ₂ H
128	1-hydroxycyclohexyl	bond	CH ₂	CH ₂	-NH-S(O)2CH ₂ CO ₂ H
129	1-hydroxycyclohexyl	bond	CH(Me)	CH ₂	-NH-S(O)2CH ₂ CO ₂ H
130	1-hydroxycyclohexyl	bond	CH ₂	O	-NH-S(O)2CH ₂ CO ₂ H
131	1-hydroxycyclohexyl	bond	CH ₂	CH ₂	-NH-S(O)2CH ₂ CO ₂ H
132	1-hydroxycyclohexyl	bond	CH(Me)	CH ₂	-NH-S(O)2CH ₂ CO ₂ H

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133	1-hydroxycyclohexyl	bond	CH2	O	-NH-S(O)2CH2CO2H
134	1-hydroxycyclohexyl	bond	CH2	CH2	-NH-S(O)2CH2CO2H
135	1-hydroxycyclohexyl	bond	CH(Me)	CH2	-NH-S(O)2CH2CO2H

13. A compound of the invention or a pharmaceutically acceptable salt or an ester prodrug derivative thereof represented by the formula:



5 where said compound is selected from a compound code numbered 1A thru 45A, with each compound having the specific selection of substituents R_{B5} and R_{C5} shown in the row following the compound code number, as set out in the following Table 2 :

Table 2

Code No.	R _{B5}	R _{C5}
1A	3Et3OH-Pentyl	-NH-S(O)2CH2CO2H
2A	3Et3OH-Pentyl	-NH-S(O)2CH2CO2H
3A	3Et3OH-Pentyl	-NH-S(O)2CH2CO2H
4A	3Et3OH-Pentyl	-NH-S(O)2CH2CO2H
5A	3Et3OH-Pentyl	-NH-S(O)2CH2CO2H
6A	3Et3OH-Pentyl	-NH-S(O)2CH2CO2H
7A	3Et3OH-Pentyl	-NH-S(O)2CH2CO2H
8A	3Et3OH-Pentyl	-NH-S(O)2CH2CO2H
9A	3Et3OH-Pentyl	-NH-S(O)2CH2CO2H

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10A	3Et3OH-Pentyl	-O-S(O)2Me
11A	3Et3OH-Pentyl	-O-S(O)2Me
12A	3Et3OH-Pentyl	-O-S(O)2Me
13A	3Et3OH-Pentyl	-O-S(O)2Me
14A	3Et3OH-Pentyl	-O-S(O)2Me
15A	3Et3OH-Pentyl	-O-S(O)2Me
16A	3Et3OH-Pentyl	-O-S(O)2Me
17A	3Et3OH-Pentyl	-O-S(O)2Me
18A	3Et3OH-Pentyl	-O-S(O)2Me
19A	3Et3OH-Pentyl	-O-S(O)2Et
20A	3Et3OH-Pentyl	-O-S(O)2Et
21A	3Et3OH-Pentyl	-O-S(O)2Et
22A	3Et3OH-Pentyl	-O-S(O)2Et
23A	3Et3OH-Pentyl	-O-S(O)2Et
24A	3Et3OH-Pentyl	-O-S(O)2Et
25A	3Et3OH-Pentyl	-O-S(O)2Et
26A	3Et3OH-Pentyl	-O-S(O)2Et
27A	3Et3OH-Pentyl	-O-S(O)2Et
28A	3Et3OH-Pentyl	-O-S(O)2CH ₂ CO ₂ H
29A	3Et3OH-Pentyl	-O-S(O)2CH ₂ CO ₂ H
30A	3Et3OH-Pentyl	-O-S(O)2CH ₂ CO ₂ H
31A	3Et3OH-Pentyl	-O-S(O)2CH ₂ CO ₂ H
32A	3Et3OH-Pentyl	-O-S(O)2CH ₂ CO ₂ H
33A	3Et3OH-Pentyl	-O-S(O)2CH ₂ CO ₂ H
34A	3Et3OH-Pentyl	-O-S(O)2CH ₂ CO ₂ H
35A	3Et3OH-Pentyl	-O-S(O)2CH ₂ CO ₂ H
36A	3Et3OH-Pentyl	-O-S(O)2CH ₂ CO ₂ H
37A	3Et3OH-Pentyl	-NH-S(O)2Me
38A	3Et3OH-Pentyl	-NH-S(O)2Me
39A	3Et3OH-Pentyl	-NH-S(O)2Me
40A	3Et3OH-Pentyl	-NH-S(O)2Me

41A	3Et3OH-Pentyl	-NH-S(O)2Me
42A	3Et3OH-Pentyl	-NH-S(O)2Me
43A	3Et3OH-Pentyl	-NH-S(O)2Me
44A	3Et3OH-Pentyl	-NH-S(O)2Me
45A	3Et3OH-Pentyl	-NH-S(O)2Me

14. The prodrug derivative of the compound according to Claim 1 to 13 wherein
the prodrug is a methyl ester; ethyl ester; N,N-diethylglycolamido ester; or
5 morpholinylethyl ester.

15. The salt derivative of the compound according to Claim 1 to 13 wherein the
salt is sodium or potassium.

10 16. A pharmaceutical formulation comprising the compound according to Claim
1 to 13 together with a pharmaceutically acceptable carrier or diluent.

17. A formulation for treating osteoporosis comprising:

Ingredient (A1): the vitamin D receptor modulator of Claim 1;

15 Ingredient (B1):

one or more co-agents selected from the group consisting of:

- a. estrogens,
- b. androgens,
- c. calcium supplements,
- d. vitamin D metabolites,
- e. thiazide diuretics,
- f. calcitonin,
- g. bisphosphonates,
- h. SERMS, and
- i. fluorides; and

20

25

Ingredient (C1): optionally, a carrier or diluent.

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18. The formulation of claim 17 wherein the weight ratio of (A1) to (B1) is from 10:1 to 1:1000.

19. A formulation for treating psoriasis comprising:

5 Ingredient (A2): the vitamin D receptor modulator of claim 1;
 Ingredient (B2):
 one or more co-agents that are conventional for treatment psoriasis
 selected from the group consisting of:
 a. topical glucocorticoids ,
10 b. salicylic acid,
 c. crude coal tar; and
 Ingredient (C2): optionally, a carrier or diluent.

20. The formulation of claim 19 wherein the weight ratio of (A2) to (B2) is
15 from 1:10 to 1:100000.

21. A method of treating a mammal to prevent or alleviate the pathological effects of Acne, Actinic keratoses, Alopecia, Alzheimer's disease, Bone maintenance in zero gravity, Bone fracture healing, Breast cancer, Chemoprevention of Cancer, Crohn's disease, Colon cancer, Type I diabetes, Host-graft rejection, Hypercalcemia, Type II diabetes, Leukemia, Multiple sclerosis, Myelodysplastic syndrome, Insufficient sebum secretion, Osteomalacia, Osteoporosis, Insufficient dermal firmness, Insufficient dermal hydration, Psoriatic arthritis, Prostate cancer, Psoriasis, Renal osteodystrophy, Rheumatoid arthritis, Scleroderma, Skin cancer, Systemic lupus erythematosus, Skin cell damage from Mustard vesicants, Ulcerative colitis, Vitiligo, or Wrinkles; wherein the method comprises administering a pharmaceutically effective amount of at least one compound of claim 1 or 12.

22. The method of claim 21 for the treatment of psoriasis.

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23. The method of claim 21 for the treatment of osteoporosis.

24A method of claim 21 for treating a mammal to prevent or alleviate skin cell protection from Mustard vesicants.

25. A method of treating a mammal to prevent or alleviate the pathological effects of Benign prostatic hyperplasia or bladder cancer.

26. A method of treating or preventing disease states mediated by the Vitamin D receptor, wherein a mammal in need thereof is administered a pharmaceutically effective amount of the compound according to Claims 1 to 13.

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27. A compound as claimed in any one of Claims 1 to 13 for use in treating a mammal to prevent or alleviate the pathological effects of Acne, Actinic keratosis, Alopecia , Alzheimer's disease, Bone maintenance in zero gravity, Bone fracture healing, Breast cancer, Chemoprevention of Cancer, Crohn's disease, Colon cancer, Type I diabetes, Host-graft rejection, Hypercalcemia , Type II diabetes, Leukemia, Multiple sclerosis, Myelodysplastic syndrome, Insufficient sebum secretion, Osteomalacia, Osteoporosis, Insufficient dermal firmness, Insufficient dermal hydration, Psoriatic arthritis, Prostate cancer, Psoriasis, Renal osteodystrophy, Rheumatoid arthritis, Scleroderma, Skin cancer, Systemic lupus erythematosus, Skin cell protection from Mustard vesicants, Ulcerative colitis, Vitiligo, or Wrinkles.

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28. A compound as claimed in any one of Claims 1 to 13 for use in treating a mammal to prevent or alleviate the pathological effects of Benign prostatic hyperplasia or bladder cancer.

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29. A compound as claimed in any one of Claims 1 to 13 for use in treating or preventing disease states mediated by the Vitamin D receptor.

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30. A compound as claimed in Claim 1 substantially as hereinbefore described with reference to any of the Examples.

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31. A process for preparing a compound as claimed in claim 1 substantially as hereinbefore described with reference to any of the Examples.

32. The use of a compound as claimed in claim 1 substantially as herein
5 described with reference to any of the Assays and Tables for mediating the Vitamin D receptor.